REMARKS

In response to the Office Action mailed July 26, 2005, the Examiner's claim rejections have been considered. Applicants respectfully traverse all rejections regarding all pending claims and earnestly solicit allowance of these claims.

Claims 13-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter, which Applicants regard as the invention. Claims 1-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Loan *et al.* (US 5,868,159) or Balazy *et al.* (US 6,152,162). Claims 1-20 are rejected under 35 U.S.C. 102(a) as being anticipated by White *et al.* (W0/02/25391). Claims 1 – 20 are rejected under 35 U.S.C. 102(e) as being anticipated by White *et al.* (US 6,539,968 B1).

1. Claim Rejections – 35 U.S.C. § 112

The Examiner rejected claims 13-20 under 35 USC §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter, which Applicants regard as the invention.

Claims 13-20 have been amended to clarify the claimed subject matter thereby traversing the rejection. Accordingly, Applicants submit that the claims as presented in the amendment conform to all applicable requirements under 35 USC §112 and respectfully request that the rejections be withdrawn. Applicants note that such amendments are not intended to limit the claimed invention. Rather, such amendments are made solely in response to the Examiner's rejections.

2. Claim Rejection – 35 U.S.C. § 102(b)

The Examiner has rejected claims 1-20 under 35 U.S.C. § 102(b) as being anticipated by Loan *et al.* (US 5,868,159) (hereinafter "Loan").

Applicants respectfully traverse this rejection. For the sake of brevity, the rejections of the independent claims 1 and 13 are discussed in detail on the understanding that the dependent

claims are also patentably distinct over the prior art, as they depend directly from their respective independent claims. Nevertheless, the dependent claims include additional features that, in combination with those of the independent claims, provide further, separate, and independent bases for patentability.

Applicants respectfully submit that Loan does not anticipate the presently claimed invention because Loan does not teach or suggest a mass flow controller comprising a nonlinear flow restrictor comprising "an elongated path length" and is "configured to produce a highly compressible laminar flow therethrough," as recited in claim 1 and claim 13. It is noted that it is generally held that laminar flow implies heat transfer and viscous losses.

In sharp contrast, Loan discloses a pressure-based mass flow controller wherein the flow restrictor is an aperture. Furthermore, Loan discloses classic sub-sonic and sonic flow equations to describe and characterize the flow through the aperture. It is a basic premise of these equations that a gas expands in an isentropic manner, meaning there is no heat transfer or viscous losses through the aperture. Thus, the resulting flow through the aperture is vastly different from the resulting flow through an elongated path length, as recited in claim 1 and claim 13. Accordingly, it is submitted that the Loan reference does not disclose the claimed invention.

Because Loan fails to disclose, teach, or suggest non-linear flow restrictor comprising an elongated path length and configured to produce a highly compressible laminar flow therethrough, Applicants respectfully submit that the Loan reference does not anticipate claims 1–20 and respectfully request allowance of these claims.

3. Claim Rejection – 35 U.S.C. § 102(b)

The Examiner has rejected claims 1-20 under 35 U.S.C. § 102(b) as being anticipated by Balazy et al. (US 6,152,162) (hereinafter "Balazy").

Applicants respectfully traverse this rejection. For the sake of brevity, the rejections of the independent claims 1 and 13 are discussed in detail on the understanding that the dependent claims are also patentably distinct over the prior art, as they depend directly from their respective independent claims. Nevertheless, the dependent claims include additional features that, in

combination with those of the independent claims, provide further, separate, and independent bases for patentability.

Applicants respectfully submit that Balazy does not anticipate the presently claimed invention because Balazy does not teach or suggest a mass flow controller comprising a thermal sensor in communication with at least one of the first internal passage, the second internal passage, and the nonlinear flow restrictor, as recited in claim 1 of the invention. Additionally, Balazy does not teach or suggest a mass flow controller comprising a thermal sensor in communication with the nonlinerar flow restrictor as recited in claim 13 of the invention.

Furthermore, it is respectfully submitted that the thermal sensor is not inherent in Balazy. In order for an element to be inherent, extrinsic evidence must show that the "missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill." Continental Can USA, Inc. v. Monsanto, Co., 948 F.2d 1264, 1268 (Fed Cir. 1991) (quoting In re Oelrich, 666 F.2d 578, 581 (CCPA 1981)). Furthermore, Applicants submit that "inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." Continental Can USA, Inc. v. Monsanto, Co., 948 F.2d at 1269 (quoting Hansgirg v. Kemmer, 102 F.2d 212, 214 (CCPA 1939)). Accordingly, it is respectfully submitted that the Examiner has not provided the requisite showing of inherency.

Because Balazy fails to disclose, teach, or suggest a thermal sensor, Applicants respectfully submit that the Balazy reference does not anticipate claims 1–20 and respectfully request allowance of these claims.

4. Claim Rejection – 35 U.S.C. § 102(a)

The Examiner has rejected claims 1-20 under 35 U.S.C. § 102(a) as being anticipated by White et al. (W0/02/25391).

In response, Applicants respectfully submit that the rejection to the claims 1 – 20 have been overcome because International Application No. PCT/US01/28665 (published International Publication No. WO 02/25391) is not a proper reference under 35 U.S.C. § 102(a). More specifically, Applicants submit that this reference is not a publication made by "another."

In the case, In re Katz, the court states that while "[i]t may not be readily apparent from the statutory language that a printed publication cannot stand as a reference under § 102(a) unless it is describing the work of another. A literal reading might appear to make a prior patent or printed publication "prior art" even though the disclosure is that of the applicant's own work. However, such an interpretation of this section of the statute would negate the one year period afforded under § 102(b) during which an inventor is allowed to perfect, develop and apply for a patent on his invention and publish descriptions of it if he wishes." In re Katz, 687 F.2d 450, 454 (CCPA 1982). Applicants submit that the International Application is not a reference by "another" as William W. White is an inventor in both the International Application and this pending application. In support, Applicants submit a Declaration under 37 CFR 1.132 showing that International Application No. PCT/US01/28665 is not a prior art reference by "another." Accordingly, Applicants respectfully request withdrawal of the rejection.

5. Claim Rejection – 35 U.S.C. § 102(e)

The Examiner has rejected claims 1-20 under 35 U.S.C. § 102(e) as being anticipated by White *et al.* (US 6,539,968 B1).

In response, Applicants respectfully submit that the rejection to claims 1 –20 have been overcome because U.S. Patent No. 6,539,968 ('the '968 patent) is not a proper reference under 35 U.S.C. § 102(e). More specifically, Applicants submit that the '968 patent is not a reference by "another" as William W. White is an inventor in both the '968 patent and this pending application. Applicants have submitted a Declaration under 37 CFR 1.132 showing that the '968 patent is not a prior art reference by "another." Accordingly, Applicants respectfully request withdrawal of the rejection.

6. Drawings

Applicants have submitted replacement drawings 1-5. Fig. 1 has been amended to illustrate the appropriate placement of the thermal sensor 23 in one embodiment as described in the specification.

CONCLUSION

Applicants have made an earnest and *bona fide* effort to clarify the issues before the Examiner and to place this case in condition for allowance. Reconsideration and allowance of all of claims 1-20 is believed to be in order, and a timely Notice of Allowance to this effect is respectfully requested.

No fee is believed due with the submission of this paper. However, if the Applicant is mistaken, the Commissioner is hereby authorized to charge any required fees from Deposit Account No. 502811, Deposit Account Name BROWN RAYSMAN MILLSTEIN FELDER & STEINER.

Should the Examiner have any questions concerning the foregoing, the Examiner is invited to telephone the undersigned attorney at (310) 712-8300. The undersigned attorney can normally be reached Monday through Friday from about 9:00 AM to 6:00 PM Pacific Time.

Respectfully submitted,

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